

April 11, 2003

Fort Bragg, City of, City Corporation Yard
31301 Cedar Street
Fort Bragg
Case No. 1TMC049

Notice of Proposed No Further Action related to petroleum hydrocarbon discharge.

Comment Period ends May 12, 2003

Problem Description:

The Fort Bragg Corporation Yard site is located at 31301 Cedar Street, Fort Bragg, Mendocino County. A 1,000-gallon underground storage tank (UST), associated underground piping and dispenser system were removed from the site in November 1988. The UST stored unleaded gasoline and was approximately 3 to 5 years old. Contaminated soil was discovered during the removal process.

Interim Actions Completed:

During the tank removal three ¼ inch diameter holes were observed: two holes were located in the bottom of the UST and one hole on the top at the dispenser end. Obvious visual contamination as well as petroleum vapors were noted in the excavation pit. Initial soil samples collected from the excavation pit were analyzed and results revealed total petroleum hydrocarbons as gasoline (TPH-gas), Benzene, Ethylbenzene, Toluene and Xylene (BTEX) in site soil. The excavation pit was left open for 2 years and the excavated soil was stockpiled on-site. The soil was reused in November 1990 as backfill for the excavation pit.

In January 1990 three monitoring wells and one soil boring were drilled. Groundwater and soil samples were collected for analysis. Laboratory analysis revealed contaminant concentrations below laboratory detection limits in soil samples, however, analysis of the groundwater samples revealed the presence of TPH-gas and BTEX. Due to the reported impact to site groundwater, samples were collected from the sixteen domestic/irrigation wells surrounding the site. In January 1991 a monitoring and reporting program required the monthly sampling of two of the domestic/irrigation wells, the quarterly sampling of the remaining fourteen and the quarterly sampling of site monitoring wells. Sampling results for the domestic/irrigation wells revealed low level detections of TPH-gas in the wells located at 20501 Monsen Way, 20475 Lyta Way and 31280 Cedar Street (mailing address 31250 Cedar Street).

Between May 1993 and October 1995 three additional monitoring wells and thirteen soil borings were advanced on-site. TPH-gas and other petroleum constituents were reported in off-site groundwater.

In June 1997 a second over-excavation was performed to a depth of 10-12 feet, four feet below the former UST excavation. Approximately 300 cubic yards of impacted soil was removed. During the process, monitoring well MW-1 was removed. Using field screening devices, excavation continued until non-detect concentrations of contaminants in site soil were evident. The exception was soil along the south sidewall. Further excavation was limited in this area due to the structural integrity of the foundation of the adjacent building. Seven confirmation soil samples were collected from the sidewalls and bottom of the excavation pit. Lab analysis revealed contaminant concentrations below laboratory detection limits with the exception of 530 parts per million (ppm) TPH-gas in sample (S7) collected along the south sidewall at a depth of 11 feet below ground surface (bgs).

Between June 1997 and April 20, 1998 the site monitoring wells were sampled twice. On April 20, 1998 the Regional Water Board received a request from the City of Fort Bragg for no further action at the subject site. The request was based on the finding that petroleum hydrocarbon concentrations in water samples collected from site monitoring wells were below laboratory detection limits.

Regional Water Board staff requested that additional information be submitted concerning the surrounding domestic/irrigation wells. On July 25, 2001 seven of the sixteen previously identified domestic/irrigation wells were re-sampled. Water samples were analyzed for TPH-gas, TPH-diesel, BTEX and the five fuel oxygenates. Results reported contaminant concentrations below laboratory detection limits with the exceptions of 140 ppb TPH-diesel and 370 ppb TPH-gas in the sample collected from 31196 East Cedar Street and 2.9 ppb of MtBE in the sample collected from 20525 Monsen Way. Both wells are located up-gradient of the former tank location.

A confirmation sample was collected from 31196 East Cedar Street on August 9, 2002 and results revealed contaminant concentrations below laboratory detection limits. On December 21, 2001 the two domestic/irrigation wells and the five site monitoring wells were again sampled. Analytical results revealed contaminant concentrations below the laboratory detection limits with the exception of 57 ppb of TPH-diesel in site monitoring well MW-6 and 2.6 ppb of MtBE in monitoring well MW-4. The applicable water quality objectives for TPH-diesel and MtBE are 100 ppb and 5 ppb respectively.

Monitoring well MW-6 and MW-4 are located down gradient of the former gasoline tank location. However, the former underground storage tank is not considered the source of the low level detections of MtBE and TPH-Diesel in site groundwater. The former underground storage tank had previously stored gasoline, not diesel, and all preceding groundwater sampling events reported MtBE concentrations below laboratory detection limits. Infiltration of storm water runoff from roadway pavement and natural organic matter in soil are potential sources for the detections of TPH-Diesel and MtBE in site groundwater.

Proposed Action:

No further action.

MtBE Status: MtBE was detected in on-site and off-site groundwater at low level concentrations. A one time detection of MtBE in monitoring well MW-4 reported 2.6 ppb and a one time detection of MtBE in the well located at 20525 Monsen Way reported 2.9 ppb.

Unless comments are received with significant new information, Regional Water Board staff plans to concur with no further action upon conclusion of the comment period. For further information regarding this site, please contact Rachel Bosworth at (707) 576-2542.